

## ABSTRACT

A group of polymers comprising a plurality of polyolefin chains and polar polymer chains and having a multi-branched structure such as a block structure, a graft structure and a star-shaped structure is produced efficiently by polymerizing or reacting a combination of various polar monomers and their polymers i.e. polar polymer chains by using a functional group-containing polyolefin as a macroinitiator, a macromonomer or a reactive polymer. The resulting multi-branched polymer has a specific shape such as a block structure, a graft structure or a star-shaped structure, and has properties of both the polyolefin and polar polymer, thus exhibiting useful performance in various uses in films and compatibilizing agents as a novel polyolefin-based polymer.